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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/123,253	07/27/98	HUTCHENS T	D-5639-C4

IM22/0107

PATENT DEPARTMENT
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EXAMINER	
ALEXANDER, L	
ART UNIT	**PAPER NUMBER**
1743	9

DATE MAILED: 01/07/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
09/123,253	Hutchens et al.
Examiner	**Group Art Unit**
Lyle A. Alexander	1743

☒ Responsive to communication(s) filed on *Nov 1, 1999* .

☒ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *49-113* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *49-113* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____ .

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____ .

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). *3,8*

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 49-63 and 86-113 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 5,719,060. Although the conflicting claims are not identical, they are not patentably distinct from each other because both are directed to a probe and its associated method of use where a sample is bound to the probe and disturbed in a mass spectrometer.

3. Claims 49-113 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-24 of copending Application No. 08/068,896. Although the conflicting claims are not identical, they are not patentably distinct from each other because both are directed to a probe and its associated method of use where a sample is bound to the probe and disturbed in a mass spectrometer .

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. ***Claim Rejections - 35 USC § 102***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 49-55,57,59,62-71,73-74,76,78,81,84,86-93,95,97,100,101 and 105-113 are rejected under 35 U.S.C. § 102(a) as being clearly anticipated by Breenen et al.

Breemen et al. teach analysis by mass spectrometry involves the vaporization and ionization of a small sample of mater, using a high energy source, such as a laser. The probe is designed to hold a Vespel (plyimide)rod tip by the laser beam ... The positively charged ionized molecules are then accelerated through a short high voltage field and let fly into a high vacuum chamber, at the far end of which strike a sensitive detector surface... which in turn, can be used to identify ... known molecules ... All prior art procedure which present proteins or other large biomolecules on a probe tip ... The laser beam strikes the mixture on the probe tip and its energy is used to vaporize a small portion of the matrix material along with some of the embedded analyte molecules...".

Within this citation from the specification a method/apparatus is defined having a spectrometer tube, vacuum means, electrical potential means for accelerating a portion of

the disturbed sample, a probe for presenting the sample where a portion (not all) of the sample is used, a laser and detector. Clearly the matrix in which the sample associated is an energy absorbing means since a portion of the matrix is vaporized (i.e. the matrix has absorbed energy to change its physical state).

Claims 49,64 and 86 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Stuke or Zare et al.

Stuke and Zare et al. both teach a time of flight mass spectrometer for the analysis of biological samples that are bound to a sample probe when inserted into the mass spectrometer.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 56,58,60-61,72,75,77,79-80,82-83,85,94,96,98-99 and 102-104 rejected under 35 U.S.C. 103(a) as being unpatentable over Breenen et al.

See Breenen et al. Supra.

Breenen et al. is silent to the use of inert materials other than polyamide on the probe. Glass and ceramic materials are result effective variables for their well known properties of inertness and durability . It would have been within the skill

of the art to modify Breenen et al. to use other well known inert materials, such as glass and ceramics, as optimization of a result effective variable (IN re Boesch 205 USPQ 215).

Claims 50-63,65-85 and 87-113 are rejected under 35 U.S.C. § 103 as being unpatentable over Stuke further in view of Turteltaub et al.

See the appropriate paragraph of paper 4.

Response to Arguments

8. Applicant's arguments filed 11/1/99 have been fully considered but they are not persuasive.

Applicants willingness to submit a terminal disclaimer upon indication of allowable claims is acknowledged and appreciated.

Applicants remarks to Humpel et al., Turtletaub et al. and Applicants' admitted prior art on pages 1-5 of the specification were convincing with respect to the 35 USC 102 rejections.

Applicants traverse Stuke on the basis a removably insert able probe is not taught and that the vacuum system is not shown. The instant claim language of "removably insert able" is sufficiently broad to be read on Stuke because the probe has the ability to inserted and removed. The remarks concerning the vacuum are not understood. The instant claim language does not specify a vacuum means.

Applicants traverse Zare on the basis that a single energy source is not taught. The instant claim language fails to exclude additional means to provide the claimed function.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lyle A. Alexander whose telephone number is (703) 308-3893.

LAA

January 6, 2000

LYLE A. ALEXANDER
PRIMARY EXAMINER